

AMENDMENTS TO THE CLAIMS

This listing of Claims will replace all prior versions, and listings, of Claims in the Application:

Listing of Claims.

1-44 (CANCELLED)

45 (NEW): A battery, comprising:

a positive electrode;

a negative electrode; and

an electrolyte;

wherein the positive electrode comprises active material particles having an inner region and an outer region, wherein the inner region comprises a cubic spinel lithiated manganese oxide, and the outer region is enriched in Mn^{+4} relative to the inner region.

46 (NEW): The battery according to claim 45, wherein the cubic spinel lithiated manganese oxide is represented by the formula $\text{Li}_{1+x}\text{Mn}_{2-x}\text{O}_4$ where $0 \leq x < 0.2$.

47 (NEW): The battery according to claim 46, wherein $0.081 \leq x < 0.2$.

48 (NEW): The battery according to claim 47, wherein the outer region of the active material particles comprises A_2MnO_3 , wherein A is an alkali metal.

49 (NEW): The battery according to claim 48, wherein A is Li.

50 (NEW): The battery according to claim 48, wherein A is Na.

51 (NEW): The battery according to claim 45, wherein the outer region of the active material particles comprises A_2MnO_3 , wherein A is an alkali metal.

52 (NEW): The battery according to claim 51, wherein A is Li.

53 (NEW): The battery according to claim 51, wherein A is Na.

54 (NEW): The battery according to claim 45, wherein the active material is prepared by a process comprising the step of reacting starting material cubic spinel lithiated manganese oxide particles with an alkali metal compound in air for a time and at a temperature sufficient to oxidize at least a portion of the Mn^{+3} in the cubic spinel starting material particles to Mn^{+4} .

55 (NEW) The battery according to claim 54, wherein the active material is enriched in lithium relative to the starting material cubic spinel lithiated manganese oxide.

56 (NEW): The battery according to claim 54, wherein the active material is characterized by a lattice parameter a that is larger than the parameter a of untreated spinel lithiated manganese oxide particles.

57 (NEW): The battery according to claim 54, wherein the active material is characterized by a lattice parameter a that is smaller than the parameter a of untreated spinel lithiated manganese oxide particles.

58 (NEW): The battery according to claim 54, wherein the alkali metal compound is selected from the group consisting of alkali metal carbonates, metal oxides, hydroxides, sulfates, aluminates, phosphates and silicates.

58 (NEW): The battery according to claim 54, wherein the alkali metal compound is an alkali metal phosphate.

60 (NEW): The battery according to claim 54, wherein the alkali metal compound is an alkali metal hydroxide.

61 (NEW): The battery according to claim 54, wherein the alkali metal compound is an alkali metal carbonate.

62 (NEW): The battery according to claim 61, wherein the alkali metal compound comprises lithium carbonate.

63 (NEW): The battery according to claim 54, wherein oxidation to Mn^{+4} occurs at the surface of the starting material cubic spinel lithiated manganese oxide particles.

64 (NEW): The battery according to claim 54, wherein the active material is enriched in lithium relative to the starting material cubic spinel lithiated manganese oxide.

65 (NEW): The battery according to claim 54, wherein the step of reacting starting material cubic spinel lithiated manganese oxide particles with an alkali metal compound is carried out at a temperature of between 600°C and 750°C.

66 (NEW): The battery according to claim 54, wherein the starting material is represented by the formula $\text{Li}_{1+x}\text{Mn}_{2-x}\text{O}_4$ where $0 \leq x \leq 0.08$.

67 (NEW): The battery according to claim 45, wherein the negative electrode comprises an intercalation active material.

68 (NEW): The battery according to claim 67, wherein the intercalation active material is graphite.

69 (NEW): The battery according to claim 68, wherein the electrolyte comprises a solvent selected from the group consisting of gamma-butyrolactone, tetrahydrofuran, propylene carbonate, vinylene carbonate, ethylene carbonate, dimethyl carbonate, diethyl carbonate, butylene carbonate, methyl-ethyl carbonate, dipropyl carbonate, dibutyl carbonate, diethoxy ethane, ethyl-methyl carbonate, dimethoxyethane, and dioxolane.